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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/660,668	09/12/2003	Jack Wang	WANG156	7555

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EXAMINER	
BUTLER, PATRICK NEAL	
ART UNIT	**PAPER NUMBER**
1732	

DATE MAILED: 07/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/660,668	WANG, JACK	
	Examiner	Art Unit	
	Patrick Butler	1732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 May 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

2. The following title is suggested: Method of Forming Texture on Rubber Piece.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 4 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Lindner et al. (US Patent No. 3,973,894).

5. With respect to Claim 1, Lindner teaches taking a rubber (refined rubber) piece and fabric (mesh) piece (See Ref. No. 10 and col. 6, lines 42-58) and joining and heating them in a machine with two rollers (See roller Ref. #1 and unnumbered roller in Figure 1 under Ref. #5 and left of Ref #10). The final product is vulcanized (See Abstract and col. 6, lines 30-36).

6. With respect to Claim 4, Lindner teaches that the fabric (mesh) piece is fabric (fabric cloth).

7. With respect to Claim 8, Lindner teaches that heat is applied (See unit marked "heat source" in Fig. 1) to the roller used to join the fabric and rubber piece. Therefore,

the rollers are used to heat the rubber and fabric pieces at the same time as claimed by Claim 8.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 2-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lindner et al. (US Patent No. 3,973,894) as applied to claim 1 above, and further in view of Sprague (US Patent No. 3,979,489).

10. With respect to claims 2 and 3, Lindner teaches attaching rubber to fabric using a machine with two rollers and vulcanizing as previously described. Lindner does not teach providing a separation agent on the mesh piece. Lindner does not teach removing the meshed piece from the rubber piece after vulcanizing.

11. Sprague teaches a process of joining a rubber piece made from material M (see Figure 1, Ref. M and col. 3, lines 25-33) with a mesh material (see Ref. No. 43 and col. 3, lines 37-47). The two materials attach to each other inside a heat tunnel (see Ref. No. 37). The process vulcanizes the rubber (see col. 3, lines 19-24).

12. The mesh material is TEFLON™ (PTFE) or silicon coated (separation agents) (see col. 6, lines 61-66 and col. 7, lines 1-7) to facilitate separation of the mesh material from the rubber piece. At the end of the tunnel (post-vulcanizing), the mesh and rubber are separated (see path of rubber and mesh above Ref. No. 60.).

13. It would be obvious to one of ordinary art at the time the invention was made to combine Sprague's separation agents with Lindner's process in order to allow/facilitate separation of the mesh from the rubber.

14. With respect to claims 4 and 5, the mesh material's (fabric's) structure has a knitted component (See knitted portion of mesh structure made by Ref. No. 45 and 46), which meets the limitations of the claims.

15. It would be obvious to one of ordinary art at the time the invention was made to combine Sprague's knitted material with Lindner's process requiring a fabric piece because it allows for successful practice of Lindner's method and because the knitted material causes the textured piece to have improved loadcarrying surface and improved rebound characteristics (Col. 3, lines 33-36).

16. With respect to claim 6, for purposes of examination, shuttle fabric cloth is considered synonymous with woven fabric cloth. The mesh material's (fabric's) structure has a woven component (See Ref. No. 53C and Col. 7, lines 1-6).

17. It would be obvious to one of ordinary art at the time the invention was made to combine Sprague's knitted material with Lindner's process requiring a fabric piece because it allows for successful practice of Lindner's method and because the knitted material causes the textured piece to have improved loadcarrying surface and improved rebound characteristics (Col. 3, lines 33-36) and because the woven portion limit the drooping and control the expansion of the heated sheet (Col. 4, lines 52-64).

18. Claims 3, 4, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lindner et al. (US Patent No. 3,973,894) as applied to claim 1 above, and further in view of Japanese Publication No. JP 54160483A.

19. Lindner teaches attaching rubber to fabric using a machine with two rollers and vulcanizing as previously described. Lindner does not require a specific fabric construction.

20. With respect to claims 4 and 7, '483 teaches forming a sheet (attaching) of rubber with a fabric and vulcanizing the rubber. The fabric used is a nonwoven fabric (See English abstract).

21. It would be obvious to one of ordinary art at the time the invention was made to combine JP '483's fabric with Lindner's process in order to have the pattern of the nonwoven fabric on the surface of the rubber (See English abstract).

22. With respect to claim 3, JP '483 teaches that the rubber is vulcanized before separating (See English abstract).

23. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lindner et al. (US Patent No. 3,973,894) as applied to claim 1 above, and further in view of Seifried et al. (US Patent No. 5,228,944).

24. Lindner teaches heating two materials when joining them as previously described. Lindner does not teach preheating the materials.

25. Seifried teaches joining two materials together (See Fig. 2, Ref. No. 11b and 11d). The materials are preheated separately before coming together (See Fig. 2, Ref. No. 9b, 9c, 9h, 9i and Col. 4, lines 41-45).

26. It would be obvious to one of ordinary art at the time the invention was made to combine Seifried's preheating with Lindner's process of attaching materials in order to increase production speed and to provide a better bond.

Conclusion

27. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick Butler whose telephone number is 571-272-8517. The examiner can normally be reached on Monday through Friday 7:30 AM - 5:00 PM.

28. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Colaianni can be reached on 571-272-1196. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

29. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PB

Patrick Butler
Examiner
Art Unit 1732

MICHAEL P. COLAIANNI
SUPERVISORY PATENT EXAMINER